

# NASA Success Story

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## Ground Processing Scheduling System (GPSS)



In 1993 NASA's Ground Processing Scheduling System (GPSS) technology was licensed by Red Pepper Software of San Mateo, CA. Red Pepper Software has coupled this software with a new object-oriented system to create a series of ResponseAgent software systems, integrated planning and scheduling software packages for manufacturing and other commercial endeavors. The products are designed to help commercial firms plan and schedule their operations in an increasingly complex world while providing real-time responsiveness to customer and industry demand.

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**NASA Involvement** The scheduling of Space Shuttle Orbiter prelaunch operations at the Kennedy Space Center relies on integration of schedules for multiple Shuttle vehicles, and numerous vehicle systems and supporting subsystems. This integration effort requires extensive and timely communication of scheduling data. GPSS is an Artificial Intelligence-based software system developed by a Kennedy Space Center and Ames Research Center team to model the time, configuration and resource constraints of each activity, perform schedule conflict resolution, and respond with schedules containing minimal constraint violations.

**Social/Economic Benefit** Red Pepper Software, Inc. was co-founded in January 1993 by a former employee of Ames Research Center who had been part of the GPSS development team. The company's ResponseAgent technology developed from NASA's GPSS system has been purchased by such world-class customers as Sun Microsystems, Coors Brewing, Texas Instruments and Bausch & Lomb. In September 1996 PeopleSoft, Inc., a leading worldwide provider of client/server

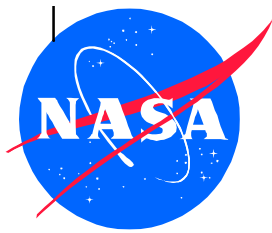
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## Ground Processing Scheduling System (GPSS) (Continued)

business software, and Red Pepper Software announced a definitive agreement to merge the two companies. PeopleSoft will issue 2.975 million shares of common stock to acquire all of the outstanding shares and stock options of Red Pepper. At the time of the announcement, the value of the Red Pepper stock was estimated at \$225 million and Red Pepper employed 130 people. PeopleSoft information is available at <http://search.peoplesoft.com/>.

**Industry Partner**  
Red Pepper Software

**NASA Partner**  
Kennedy Space Center

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